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I claim:

1. An improved desktop operated computer control device of the type having a rotatable ball for pointing control, said control device further of the type including a housing, electronic circuitry within said housing and coupled to communication means for communicating control signals from said electronic circuitry to a computer, a plurality of finger depressible buttons exposed on said housing and interfacing with sensors electrically connected with said electronic circuitry for allowing user selection of control signals communicated to a computer; at least two of said sensors each capable of providing at least three readable states of varied conductance, at least two states of said at least three readable states dependant upon depressive pressure applied to the variable-conductance sensors through depression of an associated button;
wherein the improvement comprises:
said electronic circuitry including means for reading said at least three readable states and for producing a distinct control signal for each state of said at least two states.
2. An improved desktop operated computer control device according to claim 1 wherein the distinct control signals are screen scrolling control signals, and are used to determine scrolling speed rates.

3. An improved desktop operated computer control device of the type having a rotatable ball for pointing control, said control device further of the type including a housing, electronic circuitry within said housing and coupled to communication means for communicating control signals from said electronic circuitry to a computer, a plurality of finger depressible buttons exposed on said housing and interfacing with sensors electrically

connected with said electronic circuitry for allowing user selection of control signals communicated to a computer; wherein the improvements comprise:
at least two of said sensors including pressure-sensitive variable-conductance material to provide at least three readable states of varied conductance, said states dependant upon depressive pressure applied to the pressure-sensitive variable-conductance material;
said electronic circuitry including means for reading said at least three readable states and for producing a distinct control signal for each of at least two states of said at least three readable states.

4. An improved desktop operated computer control device according to claim 3 wherein the distinct control signals are screen scrolling control signals, and are used to determine scrolling speed rates.

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5. An improved desktop operated computer control device of the type having a rotatable ball for pointing control on a computer monitor, said control device further of the type including a housing, electrical power source means for powering electronic circuitry, said electronic circuitry located within said housing, said electronic circuitry coupled to communication means for communicating control signals from said electronic circuitry to a computer, a plurality of finger depressible buttons exposed on said housing and interfacing with sensors electrically connected with said electronic circuitry for allowing user selection of control signals communicated to a computer;

wherein the improvements comprise:
at least two of said sensors each structured to provide at least three readable states of varied conductance, said states dependant upon depressive pressure applied individually to the sensors of said at

least two sensors;

said electronic circuitry including means for reading said at least three readable states and for producing scroll control signals representative of each of at least 5 two states of said at least three readable states;

a first sensor of said at least two sensors, said first sensor associated with a first button of said finger depressible buttons, said first button variably depressible to allow applying varied depressive pressure 10 to said first sensor, said first sensor connected to said electronic circuitry, said electronic circuitry for reading said at least three readable states and producing at least two different scroll-up values as said scroll control signals;

15 a second sensor of said at least two sensors, said second sensor associated with a second button of said finger depressible buttons, said second button variably depressible to allow applying varied depressive pressure to said second sensor, said second sensor connected to 20 said electronic circuitry, said electronic circuitry for reading said at least three readable states and producing at least two different scroll-down values as said scroll control signals.

6. An improved desktop operated computer control device in accordance with claim 5 wherein the first and 25 second sensors are each elastomeric dome-cap sensors each including a pressure-sensitive variable-conductance material positioned over proximal conductive circuit elements of said electronic circuitry.

30 7. An improved desktop operated computer control device in accordance with claim 5 wherein the first and second sensors are each packaged sensors each comprising:
a package housing;
an electrically conductive concavo-convex resilient

disk within the package housing;

two normally electrically separated proximal circuit elements at least in-part within the package housing;

5 a depressible button retained to the package housing and positioned such that depression of the button depresses said disk;

pressure-sensitive variable-conductance material positioned within the package housing to receive compressive pressure thereagainst from and upon depression 10 of said disk, said pressure-sensitive variable-conductance material further positioned to define at least a portion of an electrically conductive path defined between said proximal circuit elements upon depression of said disk, whereby said electrically conductive path is of varied 15 electrical conductively dependant upon an amount of compression applied to said pressure-sensitive variable-conductance material.

8. An improved computer control mouse of the type including a housing, electrical power source means for 20 powering electronic circuitry, said electronic circuitry located within said housing, pointer control means coupled to said electronic circuitry for allowing user control of a pointer on a computer monitor, said electronic circuitry coupled to communication means for communicating output 25 control signals from said electronic circuitry to a computer, a plurality of finger depressible buttons exposed on said housing and interfacing with sensors electrically connected with said electronic circuitry for allowing user selection of output control signals 30 communicated to a computer;

wherein the improvements comprise:

at least one of said sensors structured as a 35 pressure-sensitive variable-conductance sensor for varying conductance through multiple readable states, said states dependant upon depressive pressure applied to a finger

depressible button associated with said at least one of said sensors; and

said electronic circuitry structured for reading said multiple readable states, and for communicating to a
5 computer

a first output control signal type, and

a second output control signal type,

communication of either one of the first and second output control signal types determined by an amount of
10 time of depression of said button, and said second output control signal type further communicating data representing a depressive level of depressive pressure applied to said button.

9. An improved computer control mouse according to
15 claim 8 wherein said first signal type is a previous address Back signal type, whereby a user is allowed to press and release said button and have activated the command to return along a most recently followed link.

10. An improved computer control mouse according to
20 claim 9 wherein said second signal type is a variable rate screen scroll signal type, whereby a user is allowed to press and continuously hold said button to achieve a scrolling of data on a computer monitor screen.

11. An improved computer control mouse according to
25 claim 9 wherein said second signal type is a activate menu of Back addresses signal type, whereby the user is allowed to press and continuously hold said button to achieve display of a selectable list of previously visited addresses.

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B3 L 12. An improved method of controlling window scrolling of a computer using a desktop operated computer control device of the type having a rotatable ball for

pointing control, the control device further of the type including a housing, electrical power source means for powering electronic circuitry, said electronic circuitry located within said housing, said electronic circuitry 5 coupled to communication means for communicating control signals from said electronic circuitry to a computer, a plurality of finger depressible buttons exposed on said housing and interfacing with sensors electrically connected with said electronic circuitry for allowing user 10 selection of control signals communicated to a computer; said control device further of the type wherein a user depresses a scroll control button of said buttons to activate a scroll control signal related to the depressed button, and releases the depressed button to deactivate 15 said scroll control signal;

wherein the improvement comprises:

depressing, by the user, said scroll control button with any user selectable pressure level of a plurality of user selectable pressure levels, the user selectable 20 pressure levels associated with various distinct values of said scroll control signal, whereby the user controls screen scrolling rate by way of selecting the pressure applied to said scroll control button.

13. An improved method of controlling window 25 scrolling of a computer using a desktop operated computer control device according to claim 12 wherein the method further comprises

increasing pressure applied to said scroll control button for increasing scrolling rate.

30 14. An improved method of controlling window scrolling of a computer using a desktop operated computer control device according to claim 12 wherein the method further comprises

decreasing pressure applied to said scroll control

button for decreasing scrolling rate.

15. A method of manufacturing an improved desktop operated computer control device of the type having a rotatable ball for pointing control including the known prior art steps of: molding a housing; installing means for receiving a power source; installing electronic circuitry within said housing and connected to said means for receiving said power source; connecting communication means to said electronic circuitry for communicating from said control device to a computer; installing a rotatable ball; connecting to said electronic circuitry means for sensing rotation of said ball for pointing control; installing a plurality of finger depressible buttons positioned for bearing on sensors electrically connected with said electronic circuitry; said electronic circuitry for reading a plurality of said sensors as sensors having only two readable values; and further including the novel combined steps of: installing pressure-sensitive variable-conductance sensors positioned to be activated by depression of at least some buttons of said finger depressible buttons, said variable-conductance sensors structured to provide at least three readable values, said values dependant upon depressive pressure applied to said pressure-sensitive variable-conductance sensors;
- 20 installing circuitry for reading an immediate value of said at least three readable values of the pressure-sensitive variable-conductance sensors, and for communicating data representative of the immediate value from said control device to a computer,
- 25 whereby said improved device is manufactured for communicating data representative of the depressive pressure applied to said pressure-sensitive variable-conductance sensors.

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